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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,345	06/07/2006	Vincent De Groot	DEGR3003/FJD	9362
23364	7590	08/20/2007		
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			EXAMINER WACHSMAN, HAL D	
			ART UNIT 2857	PAPER NUMBER
			MAIL DATE 08/20/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/560,345	Applicant(s) DE GROOT ET AL.	
	Examiner Hal D. Wachsman	Art Unit 2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12-12-05</u> . | 6) <input type="checkbox"/> Other: _____ |

1. Figure 1 is objected to because labeling (i.e. in words) is needed so as to facilitate an understanding of the invention from the drawing. Also, the drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the method for monitoring a field device as cited in claims 14-26 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The Abstract is objected to because it less than 50 words in length. Appropriate correction is required.

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3. The use of the trademarks FieldCare, Centum CS 1000, Endress + Hauser, and Foundation fieldbus have been noted in this application. It should be *capitalized* wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

4. Page 5, line 30, cites "Fig. 1 schematic..." however was this intended to be "Fig. 1 is a schematic...." ?

5. The declaration is objected to because it contains a cross-out of the residence address for inventor Vincent De Groot which has not been initialed and dated.

Appropriate correction is required.

6. Claims 21-26 are objected to under 37 C.F.R. 1.75(a) for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claim 21, line 2, cites "the alarm or warning" however it appears that the antecedent basis is "alarm warning". This same type of problem also occurs in claims 22-25. Independent claim 26 cites "The method for monitoring a field device.." however was this intended to be "A method for monitoring a field device.." ? The examiner asks the applicant to better claim the limitations cited above. While the examiner understands the intentions of the applicant he feels confusion could be drawn from the limitations cited above. Appropriate correction is required.

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7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 23 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 23 and 25, the phrase "for example" (see "e.g....") renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). In addition, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 23 recites the broad recitation electronic form, and the claim also recites e.g. eMail, SMS, fax which is the narrower statement of the range/limitation. Also, in the present instance, claim 25

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recites the broad recitation client, and the claim also recites e.g. Internet Explorer which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Wischinski (WO 01/90829 A3).

As per claim 14, Wischinski (Abstract, page 2, lines 9-15) discloses “requesting at intervals in time, an individual identifier of the field device”. Wischinski (Abstract, page 2, lines 15-21) discloses “comparing the requested individual identifier with an identifier stored in the control unit”.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wischinski (WO 01/90829 A3).

As per claim 15, Wischinski (see abstract) discloses the individual identifier of the field device and with respect to the individual identifier being a serial number, it would have been obvious to a person of ordinary skill in the art at the time the invention was made that serial numbers were typically used for the identification of manufactured products, machines, etc.

13. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wischinski (WO 01/90829 A3) in view of Jurisch et al. (7,072,987).

As per claim 16, Wischinski (Abstract, page 5, lines 26-30) discloses the individual identifier in the device firmware of the field device but does not clearly disclose the use of a key for this. However, Jurisch et al. (col. 9 lines 20, 21, 35-38) teach this excepted feature. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Jurisch et al. to the

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invention of Wischinski as specified above because as taught by Jurisch et al. (col. 9 lines 15, 16) it would be one measure that can be used to substantially prevent abusive actions when operating the field device.

14. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wischinski (WO 01/90829 A3) in view of Jurisch et al. (7,072,987) as applied to claim 16 above, and further in view of Aisenberg et al. (6,209,090).

As per claim 17, Aisenberg et al. (Abstract, figure 5 – see blocks 506, 508) teach the feature of this claim. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Aisenberg et al. to the inventions of Wischinski and Jurisch et al. as specified above because as taught by Aisenberg et al. (Abstract, col. 2 lines 62-65) it would enable the verification of the authenticity of the data being received.

15. Claims 18 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wischinski (WO 01/90829 A3) in view of Havekost et al. (6,774,786).

As per claim 18, Havekost et al. (Abstract (block 66), figures 5-7 (see especially days and times in these figures) teach the feature of this claim. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Havekost et al. to the invention of Wischinski as specified above because a history of an alarm condition pointing out with what device and at what day and time a problem occurred in the control system.

As per claim 26, Wischinski (Abstract, page 2, lines 9-15) discloses “directing a query by the control unit to the field device in intervals of time, the query

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requires an answer from the field device". It appears though that Wischinski does not clearly disclose the remaining step of this claim. However, Havekost et al. (Abstract (block 66), figures 5-7 (see days with times), col. 10 lines 23-29, col. 14 line 67, col. 15 lines 1-4, 18-21, 38-41) teach "in case no answer comes from the field device, such fact is stored in a database along with a corresponding time stamp". It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Havekost et al. to the invention of Wischinski as specified above because as taught by Havekost et al. (col. 3 lines 19-23) in the previous art there has been few if any display applications for displaying non-process alarms, such as alarms generated by the field devices or controllers indicating some problem with the hardware associated with those devices has occurred.

16. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wischinski (WO 01/90829 A3) in view of Havekost et al. (6,774,786) as applied to claim 18 above, and further in view of the Applicant's Admissions of the prior art.

As per claim 19, the Applicant's Admissions of the prior art (page 3, lines 9-12 of the specification) states that besides intrusions from outside of the company, likewise dangerous are unauthorized intrusions from within a company. In the case of company-internal intrusions, e.g. parameters can be changed in the field devices, or the entire control strategy can be changed. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the Applicant's Admissions of the prior art to the inventions of Wischinski and Havekost et al. to store in the database when a change is detected in the requested individual identifier, because

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such a change could be indicative of an unauthorized intrusion which could lead to undesired changes in the production process (Applicant's Admissions of the prior art, page 3, line 13, of the specification).

17. Claims 20, 21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wischinski (WO 01/90829 A3) in view of the Applicant's Admissions of the prior art.

As per claim 20, the Applicant's Admissions of the prior art (page 3, lines 9-12 of the specification) states that besides intrusions from outside of the company, likewise dangerous are unauthorized intrusions from within a company. In the case of company-internal intrusions, e.g. parameters can be changed in the field devices, or the entire control strategy can be changed. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the Applicant's Admissions of the prior art to the inventions of Wischinski and Havekost et al. and to produce an alarm warning when a change is detected in the requested individual identifier, because such a change could be indicative of an unauthorized intrusion which could lead to undesired changes in the production process (Applicant's Admissions of the prior art, page 3, line 13, of the specification).

As per claim 21, it would have been obvious to person of ordinary skill in the art at the time the invention was made that maintenance work on the field device could result in the accidental triggering of alarms as it could be interpreted as tampering occurring with the field device.

As per claim 25, Wischinski (page 4, lines 5-7, 15-25) discloses communication over the Internet including the use of a browser which could be used for sending alarms or warnings.

18. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wischinski (WO 01/90829 A3) in view of the Applicant's Admissions of the prior art as applied to claim 20 above, and further in view of Havekost et al. (6,774,786).

As per claim 22, Havekost et al. (see at least abstract) teach the feature of this claim. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Havekost et al. to the invention of Wischinski and the Applicant's Admissions of the prior art as specified above because as taught by Havekost et al. (Abstract) the display and interface tool may be used to filter alarms that are displayed according to any number of categories, including the category of the alarm, the priority of the alarm, the status of the alarm, etc. so as to alternatively segregate or combine the tasks typically associated with operator, maintenance and engineer personnel.

As per claim 23, Havekost et al. (col. 15, line 67, col. 16, lines 1-3) teach the feature of this claim. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Havekost et al. to the invention of Wischinski and the Applicant's Admissions of the prior art as specified above because as taught by Havekost et al. (Abstract) the display and interface tool may be used to filter alarms that are displayed according to any number of categories, including the category of the alarm, the priority of the alarm, the status of the alarm, etc.

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so as to alternatively segregate or combine the tasks typically associated with operator, maintenance and engineer personnel.

As per claim 24, Havekost et al. (see at least abstract) teach the feature of this claim. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the techniques of Havekost et al. to the invention of Wischinski and the Applicant's Admissions of the prior art as specified above because as taught by Havekost et al. (Abstract) the display and interface tool may be used to filter alarms that are displayed according to any number of categories, including the category of the alarm, the priority of the alarm, the status of the alarm, etc. so as to alternatively segregate or combine the tasks typically associated with operator, maintenance and engineer personnel.

19. The following references are cited as being art of general interest: "Smart field bus nodes with programmable sensor interfaces" (Beikirch et al.) which disclose smart field bus nodes, Hsiung et al. (US 2003/0144746 A1) which disclose monitoring an industrial process, Boyer (6,968,292) which discloses why accurate time stamping of status messages is necessary, Hansen (6,757,714) which discloses the use of electronic mail messages to report the state of an apparatus, DeGroot (US 2005/0071522 A1) which disclose a method for operating a field device, Christensen et al. (6,618,745) which disclose field devices communicatively coupled on a communication network, Balard et al. (US 2004/0025036 A1) which disclose firmware authentication with keys, Hind et al. (7,069,452) which disclose secure firmware updates, Brandt et al. (US 2004/0107345 A1) which disclose intrusion detection in an

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industrial controller environment and Dick et al. (US 2003/0163704 A1) which disclose the association of an identifier and a timestamp.

20. No claims are allowed.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal D. Wachsman whose telephone number is 571-272-2225. The examiner can normally be reached on Monday to Friday 7:00 A.M. to 4:30 P.M..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on 571-272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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Hal D Wachsman
Primary Examiner
Art Unit 2857

HW
August 15, 2007